National Institute of Environmental Health Sciences

Dousing our inflammatory environment(s): Is personal carbon trading an option for reducing obesity and climate change?

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Abstract:

Obesity and climate change are two problems currently challenging humanity. Although apparently unrelated, an epidemiological approach to both shows a similar environmental aetiology, based in modern human lifestyles and their driving economic forces. One way of analysing this is through inflammation (defined as '. . . a disturbance of function following insult or injury') of both the internal (biological) and external (ecological) environments. Chronic, low-grade, systemic inflammation has recently been shown to accompany obesity, as well as a range of biological pathologies associated with obesity (diabetes, heart disease, some cancers, etc.). This is influenced by the body's inability to soak up excess glucose as a result of insulin resistance. In a broader sense, inflammation is a metaphor for ecological 'pathologies', manifest particularly in unnatural disturbances like climate change, ocean acidity, rising temperatures and species extinction, associated with the inability of the world's environmental 'sinks' to soak up carbon dioxide ('carbon resistance'?). The use of such a metaphorical analysis opens the possibilities for dealing with two interdisciplinary problems simultaneously. Strategies for managing climate change, including personal carbon trading, could provide a 'stealth intervention' for reducing population levels of obesity by increasing personal energy expenditure and decreasing energy-dense food intake, as well as reducing the carbon emissions causing climate change.

Source: http://dx.doi.org/10.1111/j.1467-789X.2008.00469.x

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Food/Water Quality, Food/Water Security, Temperature, Unspecified Exposure

Food/Water Quality: Other Water Quality Issue

Water Quality (other): Ocean acidification

Food/Water Security: Nutritional Quality

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co–Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Cancer, Cardiovascular Effect, Diabetes/Obesity, Mental Health/Stress, Other Health Impact

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): Heart disease

Mental Health Effect/Stress: Mood Disorder

Other Health Impact: Chronic inflammation; Metabolic disorders other than diabetes

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Mitigation

Resource Type:

format or standard characteristic of resource

Policy/Opinion, Review

Timescale:

time period studied

Time Scale Unspecified